

A NEW SPECIES OF MOUSE, *PSEUDOMYS* (*GYOMYS*),
AND A RECORD OF THE BROAD-TOOTHED RAT,
MASTACOMYS, FROM VICTORIA.

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Plate XVIII, figs. a-e.

Family **MURIDAE** Gray 1821.

Subfamily **Murinae** Baird 1857.

Genus **PSEUDOMYS** Gray 1832.

Subgenus **GYOMYS** Thomas 1910.

Pseudomys (*Gyomys*) *fumeus* sp. n.

A blue-grey mouse allied to the *albocinereus* group, but larger and slightly darker than other species. Dorsal fur long (15 mm.), soft, fine; slate-grey for four-fifths of its length, tipped with mouse grey (Ridg.). Long hairs (20 mm.) numerous, black, imparting a cool tone to the whole. Sides of body lighter, with fewer long hairs. Ventral surface greyish-white; fur slaty for three-fifths of its length, tipped with soiled white, the grey showing through. Line of demarcation not sharp. Head colouration as body but lighter on cheeks and muzzle; upper lip greyish white; a few dark hairs around eye. Ears long; purplish-grey in freshly killed animal; sparsely clothed with white and grey adpressed hairs. Mystical vibrissae with longer hairs (39 mm.) bicoloured, base black, tips white; shorter hairs white. Manus and pes white; well clothed with silvery-white adpressed hair which forms a fringe around nails. Tail longer than head and body; greyish-brown above, white on sides and below; well clothed with hair 3-4 scales in length which, nevertheless, does not completely hide scales.

Skull.—Smooth, rounded, typical of genus. Muzzle long, narrow; nasals slightly tapering, but articulation with frontal at least 2 mm. in extent. Zygomata diverging posteriorly, straight when viewed from above. Anterior edge of zygomatic plate sloping forward to its base; very slightly concave. Pterygoidal region as described for subgenus, entopterygoids but slightly raised, ectopterygoids forming a raised bead only on anterior portion of floor, which is wide and flat. Palatal foramina diverge from narrow anterior to open posterior, which reaches well behind M^1 , though in many Murines these characters vary considerably in a series of skulls and have but little diagnostic value. Bullae small, anterior-posterior length about half that of diastema.

Teeth.—Comparatively large and heavy. Laminae not tilted back; no anterior cingular cusp on M^1 . Upper incisors orange, lower pale horny yellow.

Dimensions of type measured in the flesh.—Head and body, 115 mm.; tail, 134 mm.; hind foot, 29 mm.; ear, 22 mm.

Dimensions of skull.—Greatest length, 32 mm.; basal length, 27 mm.; greatest breadth, 16 mm.; nasals, 11.8 x 4 mm.; interorbital breadth, 5 mm.; width of braincase, 14 mm.; palate length, 15.8 mm.; diastema, 8 mm.; palatal foramina, 6 x 2 mm.; upper molars, 5.5 mm.

Habitat.—Otway Forest, Victoria. Type locality Turton's Pass.

Type.—Adult male in National Museum of Victoria, C197.

Dimensions of a second male, C198.—Head and body, 114 mm.; tail, 124 mm.; hind foot, 28.8 mm.; ear, 21 mm.

Remarks.—The group was previously known by species from West Australia (*albocinereus* Gould [1] and *a. squalosum* Thomas [2]), south-eastern South Australia (*apodemoides* Finlayson [3]), and southern Queensland (*glaucus* Thomas [4]), the largest being *albocinereus*. The much greater size of the present animal, its relatively longer feet and ears, and its larger teeth, distinguish it from other species.

The two specimens were trapped in forest country with a thick undergrowth of scrub which is literally riddled with the "runs" of *Rattus assimilis* Gould. Though a search was made no small burrows were discovered, and it seems probable that the mouse makes its home in fallen logs.

Genus MASTACOMYS Thomas 1882.

Mastacomys fuscus Thomas.

Mastacomys fuscus Thomas, Ann. Mag. Nat. Hist. (5), IX, p. 413, 1882; *id.* Ann. Mag. Nat. Hist. (9), X, p. 550, 1922; Lydekker, B. M. Cat. Fos. Mamm., 1, p. 227, 1885; Ogilby, Aust. Mus. Cat. No. 16, Aust. Mamm., p. 120, 1892; Wood Jones, Mamm. Sth. Aust., III, p. 323, 1925; Finlayson, Trans. and Pro. Roy. Soc. Sth. Aust., LVII, p. 125, 1933.

In the National Museum are five skins (with skulls)*, one spirit specimen, and one separate skull of *Mastacomys*. The skull was found in a sand drift on Swan Island in 1905, three Victorian specimens were taken in 1918, and a fourth was trapped in November of last year. Of the remaining skins one is labelled "West Coast of Tasmania, 1872," the other has no data preserved. Thomas (*loc. cit.*) recorded an immature female from Victoria, but the whereabouts of the specimen has been in doubt; Mr. M. A. C. Hinton, deputy Keeper of Zoology at the British Museum, has kindly cleared up the matter, and says in a letter "it is B.M. No. 92.4.23.1, collected in Gippsland (no more precise locality given) . . . H.F. 25 mm., E. 13 mm., measured on skin in relaxed condition. It is quite a baby, molars just coming into wear."

*Recently prepared from specimens preserved in alcohol.

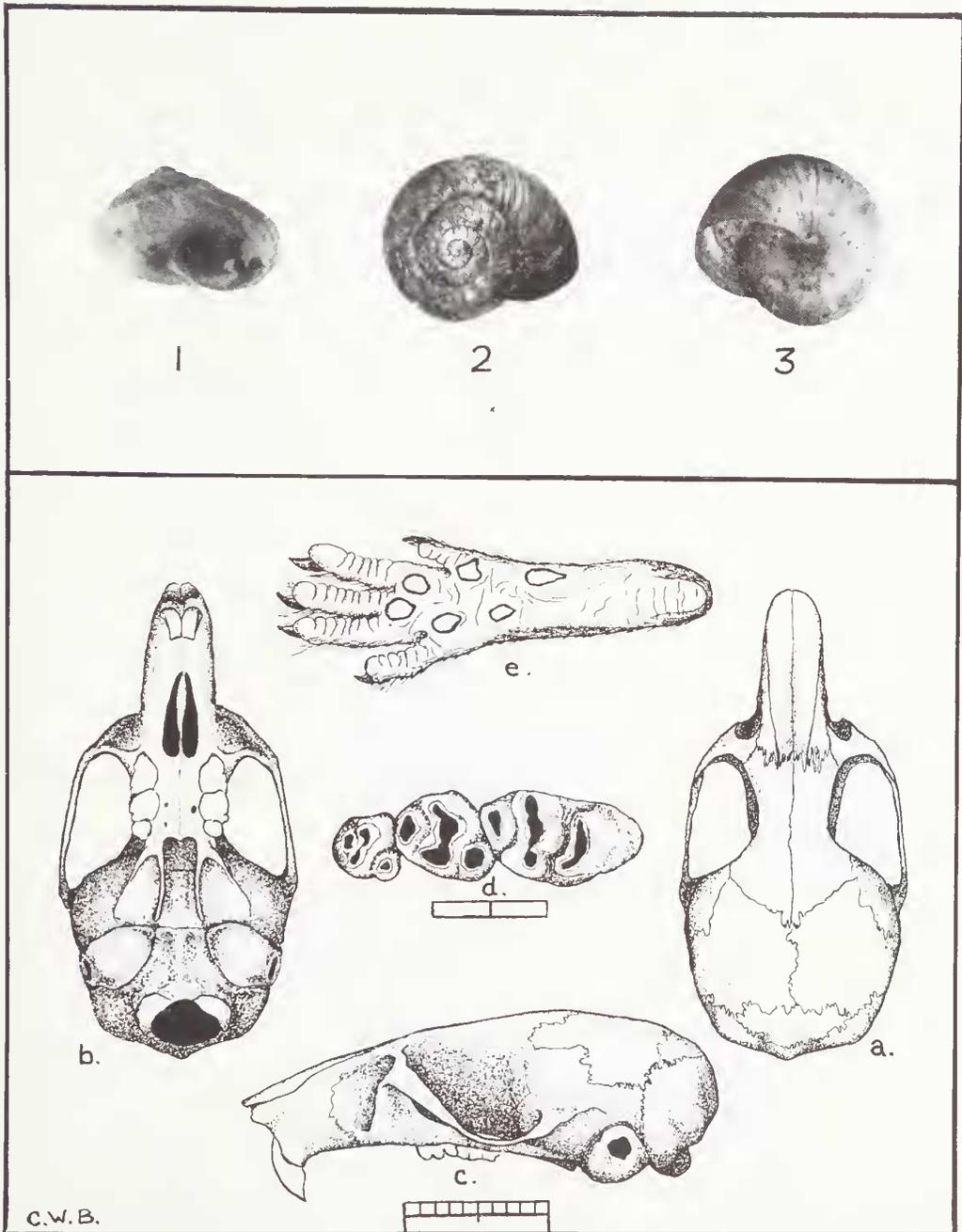
I am much indebted to Mr. H. H. Finlayson for allowing me to compare his Tasmanian series with the Victorian specimens ; except for one or two minor variations they are identical. No Victorian specimen is as large as the largest that he records (loc. cit.), but an allowance for shrinkage due to prolonged immersion in alcohol must be made. The tails of the Victorian specimens are consistently longer than those of the Tasmanian series, and expressed as a percentage of head and body length average 73% (Victoria) against 64% (Tasmania) for animals of the same general size. Victorian specimens, therefore, may be distinguished from *Rattus lutreola* not by their shorter, but by their more slender tails. The base of the tail, immediately beyond the body hair, of *R. lutreola* is 6 mm. in diameter ; that of *Mastacomys*, of similar H. and B. length, is 4 mm. On the whole the colour of the pelage of the Victorian series is brighter, the terminal band being more ochraceous, but there is a certain amount of variation and specimens from the two States grade into an unbroken colour series.

The skulls are identical. There is a wide variation in the breadth of the incisor teeth, but this cannot be correlated with locality, nor, apparently, with age.

The Victorian specimens are therefore recorded as *Mastacomys fuscus* Thomas, their slightly greater tail length (the only consistent difference) not being considered sufficient, alone, to warrant separation from the Tasmanian species.

Three specimens were donated by the late H. Quiney of Mortlake. He sent a male (Nat. Mus. No. R.1715) and a young female (R.1713) from Laver's Hill in the Otway Forest, and an adult female (C134) from his home at Mortlake, which is situated in the open plains 50 miles N.W. of the Otway Forest area ; possibly he collected this specimen also in the Otway Ranges.

The recently trapped male was taken on the edge of a clearing overgrown with bracken fern at Olangolah, near Beech Forest, at the head of the Gellibrand River (1800 feet). The surrounding forest is thick, heavily scrubbed, and very wet, the average rainfall of the district being over 60 inches. *Rattus assimilis* in considerable numbers was caught in the same place, but *R. lutreola* is not found in the locality. Near the trap were many scratchings, smaller and shallower than bandicoot scratches, which had evidently been made in search of a Puff-ball (*Lygoperdon*), fragments of which were lying amid the disturbed earth. Bandicoots are unknown in the locality, *R. assimilis* does not usually excavate for food in this way, and the scratches may probably be attributed to *Mastacomys*. It is hoped, in the



Thalassohelix translucent, sp.n., Figs. 1-3. *Pseudomys (Gyomys) fumeus* sp.n., figs. a-e.

near future, to clear up this point, and to gather further information regarding the habits of the animal.

Dimensions of Victorian Specimens of *Mastacomys fuscus* Thomas.

BODY MEASUREMENTS.

Reg. No.	C199 : ♂ mm.	R5715 : ♂ mm.	C134 : ♀ mm.	R5713 : ♀ mm.
Head and body	173	172	162	110
Tail	124	123	119	85
Hind foot	32	34	31	30
Ear	21	21	20	17.5

SKULLS.

	C199 : ♂	R5715 : ♂	C134 : ♀	R5713 : ♀
Greatest length		40	39	34
Basal length		35	34	29
Greatest breadth		22.5	22	19
Nasals		15.8 x 5.8	15.5 x 4.8	13 x 4
Interorb. breadth		4	4	4
Braincase, width		16.3	16	15
Palate, length		22	22	19
Palatal foramina		8	7.5	6.8
Diastema		10.3	10	7.5
Upper Molars		10	10	9.5

Plate XVIII.

Pseudomys (Gyomys) fumeus sp. n.

a. dorsal, b. ventral, c. lateral views of skull, d. molar teeth, e. pes.

a, b, c, and e x 2. d x 8.

References.

1. J. Gould. Five New Mammals. Proceedings Zoological Society of London, 1845, p. 78.
2. O. Thomas. On Mammals from Western Australia. Proceedings Zoological Society of London, 1906, p. 776.
3. H. H. Finlayson. Preliminary Descriptions of Two New Mammals from South Australia. Transactions and Proceedings Royal Society of South Australia, LVI, p. 170, 1932.
4. O. Thomas. New Australian Muridae of the Genus *Pseudomys*. Annals and Magazine of Natural History, Eighth Series VI, p. 609, 1910.